Europäisches Patentamt
European Patent Office
Office europeen des brevets

EP 0 709 644 A3

(12)

## EUROPEAN PATENT APPLICATION

(88) Date of publication A3:

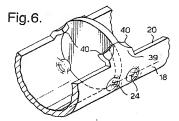
(51) Int. Cl.6: F28F 9/02

(11)

- (43) Date of publication A2:
- 01.05.1996 Bulletin 1996/18
- (21) Application number: 95306876.4
- (22) Date of filing: 29.09.1995
- (84) Designated Contracting States: DE ES FR GB IT SE
- (30) Priority: 26.10.1994 US 329547
- (71) Applicant: VALEO ENGINE COOLING INCORPORATED Jamestown, New York 14701 (US)
- (72) Inventor: Cribarl, John C. Rochester Hills, Oakland, MI 48306 (US)
- (74) Representative: Neobard, William John et al Page White & Farrer 54 Doughty Street London WC1N 2LS (GB)

## (54) Heat exchanger

(57) A tank part for a heat exchanger manifold of the type comprising separate tank a header parts joined to form a tubular manifold comprises an elongate channelshaped member (18) and at least one partition member (6.9) fitted transversely therein, wherein the tank part is provided with inwardly protruding deformed regions on opposite sides of the or each partition to hold this in position, which comprise inwardly protruding dimples (24), and/or tabs (40, 42) bent from portions upstanding from edge regions of the tank part.





## **EUROPEAN SEARCH REPORT**

Application Numb
P 95 30 6876

	DOCUMENTS CON	SIDERED TO BE RELEVA	NT	
Category	Citation of document wit of relevant	th indication, where appropriate,	Relevant to claim	CLASSIFICATION OF T APPLICATION (Int.CL6)
γ.	EP-A-0 584 993 (V	ALEO ENGINE COOLING INC.	1,2,7,	F28F9/02
	* column 3, line figures 1-3 *	42 - column 4, line 56;	10,13	
Υ	EP-A-0 501 444 (Z	EHNDER-BEUTLER GMBH)	1,2,7,	
	* page 3, line 1 · figures 1-3 *	- page 3, line 28;	10,13	
A	EP-A-0 548 850 (SA	ANDEN CORP.)		-
A	US-A-5 090 477 (SF	PROW ET AL)		
			-	
			1	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
				F28F
	The present search report has t	been drawn up for all claims		
	Place of sucreh	Date of completing of the search		Doctice
Т	HE HAGUE	15 March 1996	Belt	zung, F
X : partica Y : partica docum A : techno	TEGORY OF CITED DOCUME alarly relevant if taken alone alarly relevant if combined with an ent of the same category logical background	E: earlier patent doc after the filing da other D: document cited is L: document cited fo	ument, but publish te 1 the application 1 other reasons	ed on, or
O: 000-17	ritten disclosure ediate document	& : member of the sa document	me patent family.	corresponding